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THE FUEL CRISIS IN WARTIME BRITAIN

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THE FUEL CRISIS IN WARTIME BRITAIN

It is improbable that the gap existing in the United Kingdom between the production and the necessary consumption of coal can now be overcome in time to prevent a serious shortage of fuel. The British Government has continued to put off the introduction of coal rationing and has relied instead on measures aimed at securing increased production and the reduction of domestic and industrial consumption. However, in spite of the reorganization of the coal industry, efforts to maintain manpower in the mines and the introduction of bonus payments to encourage increased productivity, the coal output is far below what the Government anticipated when it decided to dispense with rationing. It is now apparent that even though substantial savings have been expected by austerity regulations imposed on the consumption of fuel and by the introduction of a fuel saving campaign to secure voluntary economies, none of the Government's efforts have succeeded in overcoming the fuel crisis. More than half the public are said to prefer the introduction of rationing to any other method of dealing with the problem.

Special
Problems
of Fuel
Rationing

In the opinion of the British Government the rationing of fuel presented special complications which made its introduction a difficult problem.

1. In view of the high degree of interchangeability of the different fuels in general use, fuel rationing in order to be equitable and effective had to be comprehensive. To ration coal, for example, and leave gas and electricity free, would be both inequitable as between those wholly dependent on coal and those who were able to use gas and electricity, and also ineffective since it would not necessarily result in decreased consumption of coal but merely to the substitution of coal derivatives.

2. Special treatment for special cases sacrifices simplicity which is prerequisite of effective rationing -- it is particularly difficult to arrive at a proper balance between fairness and simplicity in the case of fuel. Fuel requirements vary not only with climate but also with the size, structure, and heating equipment of the premises and with the particular need of particular categories of consumers' private households and businesses and industrial premises. A ration based

on a percentage of consumption in a standard period is simple but discriminates against those who were economical in their use of fuel prior to rationing and favors those who tended to be extravagant and wasteful. Moreover, it is unfair as between large and small consumers, since the small consumer is usually better able to make a readjustment. It is important to take into account some or all of these conditions if rationing is to be fair, but the result will necessarily be to complicate the rationing system and make it more costly to administer.

3. Effective rationing by means of coupons involved special difficulties in the case of fuels. Coal, coke, or oil are ordered in advance and can ordinarily be supplied only if the stock which the consumer has on hand does not exceed a specified amount. The question arises as to whether coupons shall be surrendered at the time of ordering or purchase, or should be collected on delivery. Gas and electricity present further difficulties, since they are consumed prior to meter readings on the basis of which coupons have to be collected. The passage of coupons between buyer and seller is, thus, not as simple an act as in the case of food or clothing which are bought and paid for in the shop.

4. The staff required to administer any scheme of fuel rationing would necessarily be large. If the ration was based on present needs and operated on a coupon system the number required would be extremely great. Not only would clerks be required for issuing the ration books, but qualified inspectors would have to be employed to fix the ration for individual premises. The number of meter readers would need to be greatly increased, and suppliers would need additional help to handle the collection of coupons and keep the required records.

5. A particular difficulty involved in introducing fuel rationing in Great Britain was the public's condemnation of the Government's failure to do anything about the falling output of coal from the mines. Lack of enough coal to operate any rationing scheme that would be acceptable to the public caused the British Government to put off rationing. Rationing has been willingly accepted by the British public, but in the case of coal where natural resources are plentiful and the public suspected that it had become scarce as a result of inefficient production and distribution, the prospect of rationing was not received favorably.

Unit vs
Points
Rationing

The adoption of any system of unit rationing for fuels would involve serious delay due to the necessity for a survey of the needs and equipment of about twelve million households. Point rationing, on the other hand, would necessitate no such previous survey and would in addition permit the exercise of consumer's choice of native fuels while securing a reduction in aggregate consumption.

Fuel
Problems
in
Great
Britain

The need for Government control of fuel became a pressing issue in Great Britain when reports 1/ indicated that unless some corrective measures were taken the country would be faced with a critical coal shortage. Britain was using 11,000,000 tons of coal more than it was producing and had export commitments in addition. Considering the key role of coal in Britain's war effort and the plentiful coal resources existing in the country, this represented to the ordinary man a shocking situation created by the unsuccessful coal policy of the government.

After the fall of Dunkirk, on the assumption that the loss of export markets would eliminate the need for their employment, 70,000 miners were allowed to leave the industry to join the Services or enter more agreeable trades. When the demand for coal first gave indications of exceeding production an attempt was made to recall 25,000 miners. Since the wages in coal mining were low relatively to those in other industries, and since many of the men had joined the Services, only 17,000 returned. In spite of the application of the Essential Work Order to the industry in May 1941, the younger men tended to drift away to less arduous and disagreeable labor, and during 1942 there was a net wastage of some 25,000 men. Moreover the output per miner declined considerably; the output per manshift at the coalface fell by 1.8 cwt. from 1941-1942, equivalent to a loss of output of 128,000 tons per week, or more than 6 million tons a year. Voluntary absenteeism, especially among the younger workers increased substantially. Absenteeism rose from 8 percent in 1938 to 13.93 percent in 1942, of which 7 percent was said to be voluntary. The loss in output due to this cause was calculated to be about 17 million tons annually. As a result of the Government's failure to remedy this situation, annual production fell from 231 million tons in 1939 to 206 million tons in 1941. Output in 1942 was 70,000 tons a week below 1941, in spite of the addition of 17,000 miners. Two possibilities were open to the government: to curtail consumption or to increase production, or both.

Beveridge
Report on
Fuel
Rationing

In pursuance of the former method Sir William Beveridge was requested to make "a report on the most equitable and effective method of restricting and rationing the consumption of fuel." His report, published in April 1942, recommended the introduction of a comprehensive rationing scheme, covering all important fuels in general use, on a points system with interchangeable coupons.

Coal, coke, gas, electricity and paraffin were to be rationed, but fuel oil, wood and peat were excluded from the scheme since their use is confined to a very limited number of premises.

1/ e. g., A report published by the Select Committee on National Expenditure, February 1942.

The coupons were to represent units of fuel, each unit being one cwt. of coal or its equivalent in coke, gas, electricity, or paraffin. The suggested exchange values were: one cwt. of coal to equal $1\frac{1}{2}$ cwt. of coke, 5 therms of gas, 90 units of electricity, and 2 gallons of paraffin.

The scheme covered only domestic consumption, including residential establishments, such as boarding schools, hospitals, hotels, boarding houses and institutions, and non-residential establishments, such as day schools, churches, business offices, shops, restaurants and places of entertainment. Coal used for domestic consumption amounts to nearly 50-60 million tons annually.^{1/} Beveridge's rationing scheme was expected to save 10 million tons.

Household
and
Personal
Ration

A household ration, involving an average cut of one-eighth, would be fixed by assessment of present needs, rather than by a percentage of consumption in a datum period. The ration would be determined by the following considerations; locality; number of habitable rooms; number of occupants; purpose for which the premises are used; supply of fuel on hand at date of rationing; and, special circumstances making extra fuel necessary. Every householder would be required to make an application for a fuel ration, stating the above information. In addition, a personal ration would be provided for each individual; a ration of $7\frac{1}{2}$ cwt. of coal a year, or its equivalent in other fuels, is suggested. Persons over 65 years of age would be allowed to exchange some of their clothing coupons for additional rations of fuel.

Techniques

Distribution of coal and coke would be controlled by requiring consumers to register ^{2/} with particular suppliers, who would be licensed and permitted to sell only to customers registered with them. Coupons would be collected either when the supply was ordered or when it was bought and delivered. Suppliers of gas and electricity would collect the requisite coupons at each meter reading and warn any householders whose consumption was so high as to suggest the possibility of exceeding the ration before the end of the year. If a householder exceeded his ration during a quarter, his supply would be restricted in the following period. Excess consumption of gas and electricity is liable to punishment by the normal penalties under the Defense of the Realm Regulations as well as by cutting off supplies.

Beveridge urged a simultaneous increase in production and voluntary economy as the best means of meeting the fuel deficiency, but insisted that:

- 1/ In 1942 it was estimated that an additional 140 million tons of coal were consumed by industry and an additional 6-10 million tons were exported.
- 2/ Registration is not required for other articles purchased under a points system.

"None of the alternatives to rationing can ensure fair distribution; if there is no rationing, there will be increased domestic consumption because of increasing purchasing power with gross inequities reflecting differences in income; it is desirable that rationing should be introduced when it can be mild and done without hardship even to the poorest; it is necessary to provide ahead for 1943 as well as 1942, because the demand for coal, as the war effort grows, is bound to rise."

Beveridge's warning has been proven; domestic consumption has been going up a million tons annually since the outbreak of war.^{1/}

The Beveridge proposals to ration domestic coal, coke, gas and electricity on a points system were severely criticized. Opposition voiced in Parliament, in the press and by the public was not so much against the rationing of fuels as on the following grounds:

Objections
to
Beveridge
Proposals

(1) The Government was trying to cover up its own failure to step up production.

(2) The estimated saving of ten million tons of coal a year represented less than 5% of total national requirements, and the gap could be bridged by more efficiency in the industry.

(3) The proposed points system was too complicated, and would require a tremendous staff to administer and enforce it.

Many practical difficulties were, indeed, involved in the scheme proposed by Beveridge. Although a points system with interchangeable coupons is desirable for the choice it affords to the individual, conversion of fuel units into hundredweights, therms, gallons and electricity units is so complicated as to be a hindrance to the rationing scheme. The amount of gas and electricity which can be used in proportion to the total fuel ration is a complex calculation which neither the average householder nor the meter inspector can easily determine. As a result, a householder might easily err in figuring out his proper allowance and inadvertently exceed his ration. Enforcement of rationing, in this case, would necessitate cutting off further supplies, a procedure which is bound to produce undue hardship and might involve penalizing other householders who were receiving supplies of gas and electricity on the same meter.

As a result of this widespread protest against fuel rationing and condemnation of the government's failure to do anything about the steady decline of coal output, the government announced its

^{1/} New York Times, September 20, 1942.

intention to: (a) postpone the rationing of fuel, (b) increase coal production by a reorganization of the industry under government control, (c) regulate consumption of particular fuels, and (d) induce voluntary saving. 1/

Postpone-
ment of
Rationing

(a) In pursuance of this policy, the rationing scheme proposed by Beveridge in his report to the Government was shelved, but the Government announced that a comprehensive fuel rationing scheme 2/ based on Beveridge's report had been formulated and household assessments would be made so that if at any stage rationing of domestic fuel should become necessary, the scheme could be introduced at short notice.

The Government's scheme for the rationing of fuel differs from the Beveridge proposals only in minor details.

(a) The exchange value of 1 cwt. of coal will equal 1 cwt. of coke and 100 units of electricity instead of $1\frac{1}{2}$ cwt. of coke and 90 units of electricity as suggested in the Beveridge Report.

(b) Establishments, i.e., schools, hospitals, hotels, business offices, shops, restaurants, places of entertainment, etc., are to be rationed on the basis of their consumption in a preceding period.

(c) Coupons are to be collected only when payment is made by cash or check.

(d) A provisional scale of household rations based on the number of rooms and the locality of the premises simplifies the determination of the ration.

State
Ownership
of Coal

(b) The government assumed full control of the mines on June 3, 1942, and state ownership of coal on July 1, 1942. The mines remain in the hands of private firms, but the government has taken over some 26,000 "holding rights" to royalties paid to the owners of the land under which the coal lies, thus ending a tenure of private vested interest which has lasted since the 16th Century. Private ownership of all coal lands has been one of the causes of uneconomic mining. Operatives leased mines from property owners, paying royalties for the privilege. In order to avoid areas where leases could not be obtained, the mines had to be developed in a haphazard, unscientific manner. Many collieries held seams which could not be developed without an unreasonable expenditure of capital. In 1938, the Coal Act set up a commission to investigate the possibility of correcting this situation, and empowered the government to acquire all royalties. Now, after four years, the government has purchased all coal in the British Isles for £ 55,450,000. It is estimated that it will take another two years before the Coal Commission will have complete reports on the basis of which to determine the way in which this sum will be distributed among 4,000 royalty owners.

1/ White Paper, published June 3, 1942.

2/ See Appendix A for details of the government's scheme for rationing of fuel.

Increase in Efficiency

To implement its decision to increase the output of coal, the government has taken steps to make the industry more efficient. Men and machines are being concentrated on the most productive seams, and areas formerly unworked are being developed. In order to secure the extension of mechanization machinery is being imported from the United States. 1/

Maintenance of Manpower

The maintenance of manpower, which is the crux of the problem of production, has been attempted by the following means:

(i) Coal mining is now a priority industry, which, under certain conditions, men may choose instead of military service. Since the autumn of 1942 about 2000 young men 18-25 have voluntarily chosen coal-mining.

(ii) 11,300 miners have been released from the Army RAF and Civil Defense Services. As a result of strong appeals by the Government, the total number of men who have returned from other industries and the Forces in the last two years is some 58,000.

(iii) The recruitment of men and young boys has been encouraged by an improvement of conditions and prospects in the industry. The Government has issued a warning that if the requisite labor supply is not attained, direction of boys 16-18 to coal-mining may be necessary. 2/

(iv) The right of the miners to a national minimum wage has been recognized and the rate of pay has been increased. 3/ High production is rewarded by a bonus granted for production above the target set for each District.

(v) Appeals have been made to the miners for good will and full cooperation in the national interest. Efforts have been made to reduce to a minimum all avoidable absenteeism.

(vi) The welfare of the miner has been made a matter of government policy.

- 1/ Mechanization in British Coal mines is only 55% in comparison with 80% in the United States and 98% in the Ruhr.
- 2/ Any boys so directed to work in the mines will be treated as if they had served in the Army, i.e., post-war education schemes, etc., would be provided.
- 3/ Subsequent to the reorganization of the coal industry, the miners pressed a claim for a national minimum weekly wage of \$17 and an advance of 80¢ per shift. The decision awarded by the Greene Tribunal granted a minimum weekly wage of \$16.60 and an increase of 50¢ per shift.

Administrative Machinery

To accomplish its purposes, the Government established machinery on the following lines: Major Lloyd George was appointed Minister of Fuel and Power, assuming charge of all petroleum control from the Board of Trade and absorbing the Ministry of Mines, to be responsible for control of the mines and the allocation of coal. He is assisted by a Controller General and four chief officers:

National

- (i) A Production Director, responsible for efficiency and volume of production;
- (ii) A Labor Director, in charge of welfare, safety, health and working conditions of the miners, and the allocation of labor;
- (iii) A Services Director, to direct the distribution and allocation of coal;
- (iv) A Finance Director, responsible for all financial arrangements, including advice on coal prices.

A National Coal Board, consisting of the Controller General, the Vice-Chairman of the Regional Coal Boards, a number of pit managers and colliery technicians, and persons representing coal distributors and coal consumers, undertake the general planning of production, including the allocation of district and regional "targets" and the securing of any improvement in machinery or method of operation whereby output may be increased. The Board also deals with all matters relating to the maintenance, productivity, health and welfare of the industry's manpower.

Regional

Each coal producing region has a Controller, assisted by three Directors--one concerned with the technical and engineering aspects of production, one with labor questions, and a third with public services (gas, electricity, and the transport and distribution of coal). Regional Boards, composed of representatives of coal owners, miners, managers and technical staff serve the Controller in an advisory capacity. The Controller and his Directors are responsible for general supervision over the mines and have the authority to close uneconomic mines and concentrate men and equipment on the most productive seams. Pit managers continue to operate as before, but are subject to removal by the Controller. Pit Production Committees assist managers to secure the maximum output. These Committees appear in practice to be in a key position.

Special Problems

As a part of the reorganization scheme, machinery has been established for dealing with special problems of the industry. Investigation Officers have been appointed in each Region, to whom all cases of absenteeism, persistent lateness and other disciplinary offenses are referred. Offenders are liable to prosecution upon the recommendation of this Officer. 1/ With a view to checking wastage of labor, a Medical Consultative Service has been created to deal with

1/ The institution of proceedings in the courts, however, is the responsibility of the National Service Officer.

all applications for release in case of sickness and to secure treatment which will enable the continuation of employment wherever possible. The Government has directed the collieries to provide adequate eating facilities, and special concessions have been made to the miners, such as extra cheese rations, priority supplies of towels, and ration-free soap at the pit head baths.

Questions of wages and conditions of employment are dealt with on a national basis. A national Wages Board, comprising a Negotiating Committee composed of eleven representatives of each side with joint chairmen, and a National Tribunal appointed by the Master of the Rolls in consultation with both sides provides comprehensive wage and conciliation machinery. Similar machinery has been established in the districts and all problems not settled locally are referred to the National Board on a joint resolution of both sides. 1/ The settlement of the Negotiating Committee and the awards of the National Tribunal are binding. The Minister of Fuel and Power has no voice in the decisions, but he may refer issues to the Tribunal and attend its hearings.

Reaction
to State
Control
of Mines

State ownership pleases the mine workers as well as the operators, since both are practically guaranteed against loss. The miners feel that they have gotten a square deal at last, since they have been granted a minimum wage and their welfare is to be the responsibility of the government.

The reaction of the mine owners to the reorganization of the industry on a national basis has been on the whole satisfactory. Their position was summarized in the Iron and Coal Trades Review as follows:

"The experience of State control in the last war was not such as to inspire confidence in a repetition, and doubts are freely expressed as to whether a change in control will encourage the miners to produce more coal. So far as the colliery managers are concerned, the Government may rest assured of their wholehearted cooperation, even if certain features of the plan are open to criticism. The Council of the National Association of Colliery Managers, at their meeting in London this week, expressed great satisfaction that pit managers and colliery technicians are to be appointed to the National Coal Board and the Regional Boards. Members of the Association have felt that their services could be more fully utilized in meeting the present coal shortage, and the Council welcomes the opportunity of greater service in the national interest and pledge themselves to give all possible support in securing an increase in production."

1/ Objections have been raised to this provision, which makes the reference of district disputes to the National Board dependent on the agreement of both sides.

Separate
Controls
of Fuel

(c) Simultaneously with the assumption of control of the coal industry, two Orders were issued--one, prohibiting waste or uneconomical use of fuel, 1/, the other enabling specific directions 2/ to be issued concerning the supply and consumption of various types of fuel and granting the right of inspection of premises. These Orders were subsequently replaced by a new Order 3/ which came into effect on January 1, 1943, and extended the powers of the Ministry of Fuel and Power to control the supply, use and consumption of fuel. Waste or uneconomical use of fuel was prohibited. To secure compliance with this prohibition, premises may be entered and inspected and fittings and appliances which consume fuel may be tested by any person authorized by the Minister. A fine of £ 100 and three months imprisonment may be imposed if waste of fuel is proven. Unless cause can be shown, the quantity of fuel used in any period may not exceed the quantity consumed during the corresponding period of the previous year. The consumption of fuel for commercial advertisements was prohibited.

This new Order received the following comment in the Manchester Guardian: 4/

"An Order which, mild though it is in itself, in effect rationed householders on the inequitable basis of previous consumption, affords no compensating guarantee of a minimum supply, and sets up an inspectorate of gas rings and light bulbs."

Separate controls were established over the various fuels in general use.

Coal

The distribution and consumption of coal is controlled in the following manner:

(i) Restrictions 5/ are placed on the furnishing of coal for actual consumption in controlled premises, i. e., premises not used mainly or wholly for industrial purposes or,

- 1/ The Waste of Fuel Order 1942, dated June 26, 1942.
S.R. & O. 1942, No. 1261.
- 2/ e.g., Purposes for which and periods during which fuel may be supplied or used. Control of Fuel Order 1942, dated July 16, 1942, S. R. & O. 1942, No. 1417.
- 3/ Control of Fuel (No. 3) Order, dated December 8, 1942,
S.R. & O. 1942, No. 2510.
- 4/ The Manchester Guardian, December 30, 1942.
- 5/ The Fuel & Lighting Registration & Distribution Order 1942,
dated June 12, 1942. S.R. & O. 1942, No. 1157.

if so used, premises which did not consume an aggregate quantity of coal, gas 1/ or electricity 2/ exceeding 100 tons during a period of twelve months prior to April 30, 1942. All coal merchants and controlled premises are required to register with the Local Fuel Overseer. Coal may be furnished to any controlled premises only by the licensed merchant whose name is entered on the Controlled Premises Register as being authorized to do so 3/, except in pursuance of agency agreements or by an arrangement for the transport of supplies made with the authorized licensed merchant. Local Fuel Overseers may transfer the custom of any controlled premises from one merchant to another in order to effect more economical distribution; consumers may not change the merchant with whom they are registered except for a good reason, subject to the discretion of the Local Fuel Overseer. The number of licensed merchants authorized to supply a controlled premise is restricted.

(ii) The maximum quantity of coal which may be furnished or acquired in a fixed period is specified by the Minister. The amount so specified has varied as between periods and regions. The maximum quantity allowed for consumption in controlled premises 4/ during a period of three months beginning August 1, 1942, was fixed at 1 ton. If the stock on hand exceeded 30 cwt. at any time during the period, further supplies would be prohibited. 5/ During the months of November and December the amount was cut to 12 cwt. in the Southern regions and 15 cwt. in the Northern regions. During the months of January, February, and March 1943, the maximum quantity of coal which could be furnished or acquired was fixed 6/ at 15 cwt. in the Southern and 1 ton in Northern regions. No coal could be acquired, however, if the stock on hand exceeded 10 cwt. of coal, thus obliging persons who had supplies of coal to use them up. 7/ During the three month period beginning April 1943, the maximum quantity of coal which could be furnished or acquired was raised to 1 ton in the Southern and 25 cwt. in the Northern regions,

- 1/ 100 therms of gas being equivalent to 1 ton.
- 2/ 2,000 units of electricity being equivalent to one ton.
- 3/ Purchases not exceeding 23 lbs. at one time are exempt from these restrictions.
- 4/ Excluding hospitals, schools, and other educational institutions.
- 5/ S. R. & O. 1942, No. 1423.
- 6/ S. R. & O. 1942, No. 2618.
- 7/ Previous Orders encouraged the building up of stocks for the winter.

and the limit on stocks which could be acquired was raised to 4 tons. During this three month period, the larger sizes of anthracite 1/ could be acquired free of restrictions in order to allow the building up of stocks for the winter. For the four month period beginning July 1943, householders are permitted to obtain 5 cwt. more coal than for the past three month period.

Local Fuel Overseers may grant licenses for extra quantities in special cases, i.e., where supplies may be difficult to deliver in winter and also, if the supply position permits, to those premises whose reasonable requirements justify the holding of large stocks.

(iii) The Local Fuel Overseer may give directions specifying the quantity of any consumer's allowance which may be delivered at any one time and the rotation in which orders may be filled. Preference is given to those who normally use less than 1 cwt. a week.

(iv) A scheme which came into effect October 10, 1942, was intended to secure an equitable distribution of coal to householders. The total supply of coal for domestic consumption is allocated on an agreed basis among eleven regions. Definite weekly allocations are fixed for each of certain designated depots, and shared among merchants at each depot in proportion to the needs of their registered customers. Coal supplies officers will inform the collieries about the amount they must supply to the depots allotted to them, and house coal officers may order transfers from those merchants to whom collieries consign more than their share to those who receive less. Each merchant is required to keep in stock a proportion of all coal allotted to him, even if he receives less than enough to meet current demand, so as to build up a reserve from which to supply customers who are unable to stock coal on their premises.

(v) Records must be kept of all sales over 28 pounds and all accounts are subject to inspection. 2/

(vi) Coal transported, stored or used other than in accordance with the regulations imposed may be seized. 3/

Coke

The distribution and supply of coke is subject to the registration and licensing requirements which are in effect in the case of coal. During the three months period beginning August 1, 1942

1/ This type of coal is not suitable for small household consumption, but it is generally used only by the large establishments.

2/ S.R. & O. 1942, No. 1214 and S.R. & O. 1942, No. 2392.

3/ S.R. & O. 1942, No. 1157 and S.R. & O. 1942, No. 2352.

no coke could be acquired if the stock on hand exceeded three tons, or would exceed this amount if the coke were supplied. 1/ During November and December this amount was increased to four tons.

Restriction
on Use of
Fuel for
Central
Heating

The use of fuel for central heating in Government offices, hotels or apartment houses is prohibited 2/ from April 17 in England and Wales and from May 8 in Scotland until after October 31, unless the Regional Fuel Controller orders otherwise in a particular district in case of abnormal weather conditions. Central heating is allowed under special permit 3/ to places used for the instruction of children under 18, to orphanages and nurseries.

After October 1, a prohibition 4/ was placed on the starting up or replenishing of central heating or hot water plants between the hours of 9:30 P.M. and 6 A. M., except under permit.

An appeal was made to the public to cooperate and assist in fuel conservation by not lighting fires or stoves just for heating rooms or using hot water boilers more than two days a week. 5/

Maximum
Lighting
Standards

Maximum lighting standards for interior lighting restrict the use of electricity in shops, hotels, restaurants, places of entertainment or sport, and meeting places. 6/ The prescribed maximum for sale rooms, restaurants, and kitchens in shops, and for dining rooms, kitchens or other public rooms in hotels and restaurants is $1\frac{1}{2}$ watts per square foot or area illuminated. For other rooms, excluding work rooms in shops, and for theaters, concert halls, dance halls, or public sport places, the maximum lighting permitted is one watt per square foot (excluding lighting required for performances or games).

A new scheme for electricity charges 7/ came into operation with the meter readings of the last quarter of the year. The former system of minimum quarterly charges to consumers regardless of the amount of current used was a deterrent to saving since a

1/ S.R. & O. 1942, No. 1423.

2/ S.R. & O. 1942, No. 1423 and S.R. & O. 1943, No. 2510.

3/ S.R. & O. 1942, No. 1928.

4/ S.R. & O. 1942, No. 1929. Office premises where the majority of the staff is on duty at night, premises used wholly or mainly for industrial purposes, hospitals or places used solely for residential purposes which contain not more than 10 rooms are expected from the Order.

5/ It was estimated that this would save 10,000 tons of fuel a week.

6/ S.R. & O. 1942, No. 1930.

7/ S.R. & O. 1942, No. 1927.

smaller meter reading did not reduce their bill. Under the new Order, charges are made on a prorata basis, except that a minimum charge of 25s may be made for a twelve month period even where the actual cost of the electricity is less, which sum is considered the minimum charge for the provision of a public utility services.

Voluntary Economy

(d) In addition to the above restrictions on the supply and consumption of fuel, the Government is relying on a sustained publicity campaign to obtain maximum voluntary reductions in domestic consumption. Voluntary economies have effected substantial savings in coal, gas, and electricity. It is estimated that fuel consumption in apartment houses has been cut by 20 percent, in hotels by 15-50 percent, in municipal offices by 17-42 percent, in cinemas by 15-59 percent, and in industry by 8-12 percent on the average. In the case of industrial users, savings have been effected not only by the correction of past extravagances but also by more efficient methods of generation and consumption of fuel.

Prior to the launching of the "save fuel" campaign, the rate of increase in the consumption of coal for the conversion into gas and electricity was substantial. The increase slowed down considerably after the introduction of the campaign but until January of this year total consumption remained above the level of the previous year. 1/ Since industrial consumption of both gas and electricity is slated to be well above the level of a year ago, their use for non-industrial purposes has no doubt shown a decline.

In February 1943, the Minister of Fuel and Power announced that as a consequence of the considerable economies in the consumption of fuel, the arrest in the decline in coal output and the mild winter, the gap between production and consumption would be closed, and that rationing of fuel would not be necessary in the immediate future.

The situation has deteriorated since this announcement. The output of coal has steadily declined and is well below the national target figure. 2/ A low mark for two years was reached in the four weeks ending August 7, 1943, the drop amounting to a weekly average of 241,500 tons compared to the same period a year ago. The output for the quarter ending June 30 of this year was 1,220,000 tons less than in the corresponding period of 1942, although the average number of wage earners was 900 more.

The failure of the Government's plan for increasing coal production has been called "one of the war's worst defeats."

1/ Appendix B shows for each month since April 1941 the percentage change in the consumption of coal for the manufacture of gas and electricity over the corresponding month of the previous year.

2/ Appendix C gives the weekly output of coal over the last two years.

Probably one of the main reasons for decline in productivity in the industry is the increasing age composition of the labor force; the shortage of young men, and the wastage of trained men. Out of a total personnel of 700,000 over one-fifth are men over 51 years and over. The most important age group, namely men 21-29 years of age, from the point of view of both immediate and future production has dropped considerably and the net loss of trained men is substantial. The necessity for increasing both the intake of young men and the total number engaged in the industry is recognized, but none of the Government's efforts have succeeded in solving the problem. The Select Committee on National Expenditure, in its Report of May 8, 1943, stated:

"The country faces the certainty that by the end of this year the number engaged in the industry will be smaller than at the present time."

The Government aims to recruit 50,000 men and boys between now and April 1945 by a voluntary recruiting campaign. Compulsion will not be exercised unless the voluntary recruiting fails to produce the required results.

Another set-back which the Government has encountered in its attempt to increase productivity is the failure of the bonus scheme,^{1/} to produce the anticipated results. The transfer of the bonus scheme from a district to a pit basis has been urged in recent months, and the matter is now being reviewed by the Greene Board. The individual pit standard would offer more scope for individual incentive but has the disadvantage of being unfair in view of the inequalities in different collieries. Many of the pit production committees as well as the Miners Federation are believed to be in favor of this method at the present time.

The demand for rationing is increasing. In view of the slump in coal output, the growing demand for coal for industry and for export and the probability that the reduction in consumption of fuel for heating purposes made possible by the mild winter of last year will not recur, it is evident that the British consumer cannot escape severe hardship this winter and the coal crisis demands solution.

1/ Under which extra payments are received by the miners when output exceeds a certain amount.

APPENDIX A

"After full consideration of the views expressed in the Debate in the House of Commons on May 7th, and after examination of various alternative schemes, the Government has decided that the most practical method of rationing the consumption of domestic fuel is by means of a 'Points' Scheme." 1/

Fuel Rationing Scheme

(1) There will be a fuel ration for each household and, in addition, a fuel ration for each person, including children.

Points System

(2) The ration will be fixed in cwt. of coal. But a consumer can take part of his ration in other fuels--coke, gas, electricity or paraffin. These will be interchangeable according to a points system on the basis that--1 cwt. of coal or coke equals 5 therms of gas or 100 units of electricity or 2 gallons of paraffin.

Principles of Household Assessment

(3) The household ration will be fixed for each household by an assessment of present needs according to a simple scale as shown below (para. 15). The ration will depend on--

(a) The locality of the household. For climatic reasons, a higher scale will be given for Scotland and the North of England than for the Midlands which in turn will have a higher scale than London and the South.

(b) The number of habitable rooms in the house (excluding sculleries, bathrooms, etc.).

(c) In the case of houses with more than seven habitable rooms, the number of residents.

The making of these assessments will be a very simple matter involving no exercise of judgment by any official, but only the tabulation of facts. 85 percent of all households contain seven habitable rooms or less.

Personal Ration

(4) The personal ration will be the same for all persons whether young or old. It will be $7\frac{1}{2}$ cwt. a year per head. Thus a family of four persons will be entitled to a total personal ration of $1\frac{1}{2}$ tons in addition to their household ration.

Supplementary Ration

(5) A supplementary ration may also be given for special needs, such as sickness necessitating additional fuel, bomb damage, the use of a house for business premises, etc. These supplementary rations will be granted by the Local Fuel Overseer. They are the only part of the ration which requires the exercise of discretion by any official, and even this will be largely reduced by the issue of simple rules dealing with the most common cases.

1/ Government White Paper, June 3, 1942, Cmnd. 6364.

(6) The question of miners' coal will be specially dealt with, after full consultation with representatives of miners and mine owners.

(7) Any householder applying for a supplementary ration, who is not satisfied with the decision of the Local Fuel Overseer, will have a right of appeal.

Rationing Period

(8) The rationing period for coal, coke and paraffin will begin on the 1st July, 1942 ^{1/} and will run to the 1st July, 1943. All coal, coke and paraffin delivered to the householder on or after 1st July, 1942 will count against his ration for these twelve months. Likewise, any stocks of coal or coke in excess of one ton held on 1st July, 1942 will count against the ration.

(9) The rationing period for gas and electricity will also run from approximately 1st July, i.e., from the first quarter meter reading after 1st September.

(10) During any half-year, electricity consumption in any household must not exceed the consumption in the corresponding six months of the previous year, except with the consent of the Local Fuel Overseer.

Enforce-
ment

(11) Any small excess of consumption of electricity or gas, over the amounts permitted will be reported to the Local Fuel Overseer and carried forward and deducted from the ration in the next period. Any larger excess may be subject, on the initiative of the Local Fuel Overseer, to prosecution and a maximum fine of, say, ten times the price per unit of the excess. In cases of flagrant and deliberate excess, supplies will be cut off, if so ordered by the Court. It is not anticipated that such cases will be at all common.

(12) Establishments, i.e., buildings other than domestic or industrial premises viz., schools, hospitals, hotels, business offices, shops, restaurants and places of entertainment, etc., will be rationed on the basis of their consumption of fuel in a preceding period. The amount of the reduction will be determined by the Local Fuel Overseer with a right of appeal. In exceptional circumstances an increase may be allowed.

In addition to rationing, establishments will be subject to restrictions directed to prevent extravagant or unnecessary use of heat and light.

Coupons

(13) Fuel rationing can only operate fairly and effectively by means of coupons, but steps will be taken to minimize any inconvenience which the use of these may cause. Each householder will have a ration book from which coupons will be detached. Further, each person receives a clothing ration book by 1st June and may use any of the 15 spare coupons which it contains to purchase $\frac{1}{3}$ cwt. of coal or the equivalent of other fuels. This is the personal ration mentioned in (4) above.

1/ This and other dates mentioned will be subject to postponement.

Collection
of Coupons

Coupons will only be required to be handed over for gas and electricity when payment is made by cash or cheque. For solid fuel coupons may, if preferred, be deposited with the order. But otherwise coupons will always go with the money. This will remove many difficulties. Thus meter readers will only need to collect coupons when they collect cash. All alternative arrangements which have been suggested are more cumbrous and more open to evasion and fraud.

In order to save labour for the gas and electricity companies arrangements should be made whereby the same person reads both the gas and electricity meters. Such an arrangement is already in force as between the Gas Light and Coke Company and the County of London Electric Supply Company.

Administrative Staff

(14) It is estimated that a permanent staff required throughout the country for the administration of fuel rationing will mean, on an average, an addition of two to three persons for each of the 1,600 Local Fuel Offices. That is to say, an addition of some 4,000 in all, including headquarters staff.

Further, for a period of six weeks to two months, some 8,000 temporary clerks will be required at the Local Fuel Offices to make assessments for household rations and to issue the household ration books. Most of this temporary staff will be borrowed, under the existing arrangements for dovetailing staff between Government Departments, from the Ministry of Food. They will just have completed their work on food ration books and will, therefore, be available during July and August for similar work on fuel rationing. The great majority of the staff, both permanent and temporary, will consist of girl clerks, with some elderly persons. Some temporary staff will also be drawn from Civil Defense Services.

Provisional
Scale of
Household
Rations

(15) The following is a provisional scale of household rations expressed in terms of coal, to which must be added both the personal rations of all members of the household under (4) and any supplemental rations under (5).

Number of Rooms	Scotland and North of England	Midlands	South of England
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cwt. of coal per year

1	40	30	25
2	45	35	30
3	55	45	35
4	60	50	40
5	70	55	45
6	75	60	50
7	85	70	55

Thus the total ration for a five roomed house with four people, each of whom is entitled to $7\frac{1}{2}$ cwt. a year as personal ration, would be 5 tons in the North, $4\frac{1}{2}$ tons in the Midlands, $3\frac{3}{4}$ tons in the South. Any supplementary ration would be additional to these figures.

The larger houses with eight rooms or more will not receive a larger ration than the seven roomed houses, unless they have sufficient residents to justify it, or there are other special circumstances. The general rule is that an extra room over seven should only count if there are at least four residents, over eight if there are at least five, and so on. The additional amount allowed per room, subject to these conditions for larger houses, will be 15 cwt. in Scotland and the North, $12\frac{1}{2}$ cwt. in the Midlands, and 10 cwt. in the South.

(16) If any householder satisfies the Local Fuel Overseer that his previous consumption was not unduly high, it will not be cut by more than $33\frac{1}{3}$ percent.

(17) These scales will, it is estimated, produce a total saving of 10 million tons of coal in a full year. They will involve no reduction for about a quarter of the total households. The remaining three-quarters will receive rations less than their present consumption.

Duties of
Householders

(18) The scheme is a simple one and the duties of the ordinary householder may be summed up as follows:--

(i) Register with a supplier for coal and for coke.

(ii) Fill in the application form which will be sent to him and return it to the Local Fuel Office. The questions that he will have to answer are outlined in (19) below.

(iii) Give up coupons for all coal, coke and paraffin bought after 1st July, 1942, and for gas and electricity used quarter by quarter starting with the first meter reading after 1st September, 1942.

(19) Outline of the householder's application form.

1. Householder's full name.....
National Registration Number.....
Full Postal Address of Premises.....
2. Number of habitable rooms in the house.....
3. Number of inhabitants of 1st July, 1942....
4. Approximate stocks of coal, anthracite and coke on 1st July, 1942. (Only required where total stocks exceed one ton.)
(Coal)tons
(Anthracite) ...tons
(Coke)tons

5. Kind of fuel used for
 - (a) cooking.....
 - (b) heating rooms.....
 - (c) heating water.....
 - (d) lighting.....

6. The name and address of the merchants with whom householder is registered for coal or coke.....

Those who wish to claim a supplementary ration may do so on a separate section of the form.

APPENDIX B

Trend of Coal Consumption in the Manufacture of
Gas and Electricity

(Percentage increase over corresponding month of previous year)

	Gas	Electricity
	%	%
1941		
September	11.9	15.1
October	11.2	14.7
November	11.7	13.6
December	11.7	13.6
1942		
April	11.0	12.0
May	9.3	10.4
June	8.6	9.7
* July	6.5	7.2
August	5.3	6.6
September	3.0	5.6
October	1.3	5.0
November	1.3	4.1
December	2.1	1.3
1943		
January	-0.8	-5.4

* Introduction of fuel saving campaign.

Source: Economist, January 9, 1943 and February 13, 1943.

APPENDIX C

Weekly Output of Saleable Coal

(Weekly Standard Tonnage 4,161,800 tons)

Four weeks ended*	1941 tons	1942 tons
September 5th.....	4,080,200	3,978,000
October 3rd.....	4,146,600	4,076,100
October 31st.....	4,131,400	4,124,500
November 28th.....	4,196,650	4,126,500
December 26th.....	3,853,400	3,880,100
	1942	1943
January 23rd.....	3,824,800	3,813,400
February 20th.....	4,028,000	4,016,400
March 20th.....	4,074,600	4,013,700
April 17th.....	3,739,800	4,005,200
May 15th.....	4,103,900	3,624,600

* The actual dates given relate to 1942 and 1943.

Source: Economist, June 5, 1943.



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